

# THE TREATMENT OF HYDROCELE BY CARBOLIC ACID INJECTION.<sup>1</sup>

By S. E. MILLIKEN, M.D.,

OF NEW YORK.

LECTURER ON SURGERY AT THE NEW YORK POLYCLINIC.

CARBOLIC acid for the cure of hydrocele is said to have been employed as early as 1872 by Levis, of Philadelphia, but no report was made of it until 1881.

Since then a number of articles have been written by leading surgeons in this country, thoroughly approving of the method.

The radical or cutting operation of Volkman and its various modifications, while usually successful in relieving the hydrocele, require the use of an anæsthetic, and a week or more in bed should suppuration occur.

The method of Levis by carbolic injection is practically painless, confinement to bed is in no sense essential to the relief of the condition, and unless an inordinate amount (over thirty minims) be used sloughing should never occur.

Out of the large number of cases of hydrocele met with in the hernia department of the Hospital for Ruptured and Crippled, I have injected fifty-four with carbolic acid.

## APPARATUS.

The simplest and most efficient apparatus is a small trocar. After thorough evacuation a hypodermic syringe can be screwed on to the canula, permitting the injection being made

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without allowing one drop of the acid to come in contact with the skin of the scrotum.

When m. v-xxv of liquified crystals of carbolic are distributed over the whole serous surface, two or three minims in each place, nothing more than a sense of warmth is felt. After removal of the canula, slight kneading of the sac may be done to insure thorough coating of its walls with the irritant.

Usually within twenty-four hours the height of the inflammatory reaction will have been reached, which consists of lymph and serous exudation, at times becoming haemorrhagic. In a number of cases I have used a small aspirating needle to ascertain just what process was going on, and in several instances I removed the recently exuded fluid, allowing the sac walls to collapse more quickly.

Of the 54 cases, 9 were never seen after the injection; 5 paid me one visit within the first week only, and 4 are at present under observation. This brings my number down to 36, all of whom were cured; 27 had one injection, 4 had two injections, 5 had three injections.

In no case has sloughing occurred, and not one of the 36 patients lost more than 24 hours from business. From two to six weeks is necessary for absorption of the exudation to take place, and thickening of the sac may remain much longer.

Although a drachm and a half of the acid has been injected, without any detrimental effects, a smaller quantity has caused sloughing. I therefore prefer doing a second, or even a third operation, using in no case more than thirty minims.

#### CONCLUSIONS.

1. Carbolic injection is a safe method for the cure of hydrocele.
2. It is practically painless.
3. The patient is allowed to attend to business without more than one day's delay.
4. The disagreeable effects of an anæsthetic are avoided.